

REMARKS

In view of the above amendments and the following remarks, reconsideration of the outstanding office action is respectfully requested.

Applicants have amended claim 6 to recite an isolation method for “microsatellite” sequences. Support for microsatellite sequences is found in the substitute specification at page 4, lines 12-13. Support for the recitation “wherein the fragments have blunt-ends” and the step of “incorporating the fragments into appropriate vectors” is found in the substitute specification at page 6, lines 5-6. Accordingly, no new matter has been entered.

The objection to the specification is respectfully traversed in light of the above amendments.

The rejection of claim 6 under 35 U.S.C. § 102(b), as anticipated by Basler et al., “Hybridization of Nuclear Matrix Attached Deoxyribonucleic Acid Fragments,” *Biochemistry* 20:6921-6929 (1981) (“Basler”), is respectfully traversed.

Basler discloses that nuclear matrix attached DNA includes satellite sequence (abstract). However, Basler does not teach producing randomly cleaved fragments of the genomic DNA using a nucleotide sequence-independent endonuclease, as set forth in claim 6. Specifically, in Basler, nuclei and nuclear matrices are purified from rat and mouse cells and digested by endogenous nuclease activity, micrococcal nuclease, and DNase I (pages 6921-22, bridging paragraph and page 6922, first full paragraph in left column). As a result, the digested product shows a ladder pattern in gel electrophoresis (Figure 1). However, Basler’s teaching of nuclear DNA digestion using DNase I failed to show this ladder pattern (“Similar results were obtained with micrococcal nuclease, and DNase I digestion, although the latter did not give the characteristic multimer pattern.”) (page 6923, right column, 2nd paragraph of “Results” section). Therefore, results in Basler’s Figure 6 were obtained using the products of endogenous endonuclease digestion. Basler does not use the digestion products of DNase I.

Basler calls the smallest unit of the ladder-forming fragments of Figure 6 the “major satellite,” the copy number being 10^6 (pg. 6926, 1st column, 1st paragraph). The genomic DNA shown in this ladder pattern is α satellite DNA, not microsatellite DNA, as required by claim 6 of the present application. Furthermore, in Basler, a ≤ 350 base pair DNA fragment digested by endogenous nuclease activity was used as probe for detecting the

satellite sequence (Figure 6). As a result, no significant difference was observed between signal intensities of total nuclear mouse DNA (Figure 6A) and nuclear matrix mouse DNA (Figure 6B) (page 6929, bottom of left column to right column, line 4). And thus, Basler concludes that none of the cloned sequences that are represented 500 times or more, including the mouse major satellites, are enriched or depleted in small matrix-attached DNA (page 6926, right column, lines 6-9). Accordingly, Basler has not isolated microsatellite DNA.

Basler also fails to teach or suggest incorporating the randomly cleaved fragments into appropriate vectors.

In view of all of the foregoing, Basler fails to teach or suggest each and every limitation of claim 6 of the present application. Therefore, the rejection of claim 6 under 35 U.S.C. § 102(b) as anticipated by Basler is improper and should be withdrawn.

Accordingly, applicants submit that this case is in condition for allowance and such allowance is earnestly solicited.

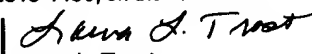
Respectfully submitted,

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